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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,743	07/25/2001	Larry Hamid	12-65 US	5597

25319 7590 04/29/2005  
FREEDMAN & ASSOCIATES  
117 CENTREPOINTE DRIVE  
SUITE 350  
NEPEAN, ONTARIO, K2G 5X3  
CANADA

EXAMINER

STREGE, JOHN B

ART UNIT	PAPER NUMBER
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2625

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary****Application No.**

09/911,743

**Applicant(s)**

HAMID, LARRY

**Examiner**

John B Strege

**Art Unit**

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 24 and 28-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24 and 28-38 is/are allowed.
- 6) ☒ Claim(s) 39-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Response to Amendment***

In response to the Applicant's amendment received 12/13/04, all requested changes to the specification and claims have been entered. Claims 1-23 and 25-27 have been cancelled and claims 39-48 have been added.

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 39-48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 39 discloses identifying data from the first set of data and also analyzing the first set of data, however there is no statement to link the two limitations. If the same set of data is being identified and analyzed, it is unclear what the difference is between the limitations and further where the limitations are disclosed in the specification. For examining purposes it is assumed that identifying the data relates to encoding the features as seen in step 303 of figure 11. The analyzing limitation is assumed to relate to the dividing of the features into subsets as described in paragraph 66 of the specification and seen in steps 340 and 305. The claim is indefinite because these two steps do not involve the same set of data, the encoding involves the features and the analysis involves the strings.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 39-41, and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Califano et al. USPN 6,041,133 (hereinafter Califano).

Regarding claim 39, Califano discloses a method of generating biometric data comprising: receiving a first set of data from a biometric input device, the first set of data derived from a biometric sample (fingerprint image with features col. 5 lines 15-20); identifying data from the first set of data corresponding to a first feature of the biometric sample in accordance with a first predetermined algorithm (col. 5 lines 30-50 and col. 12 lines 23-25 discloses identifying data regarding distances between feature points, coordinates, direction, etc. of the feature points, the data is encoded using an algorithm col. 11 lines 55-65); analyzing the first set of data to determine features therein and to determine at least a parameter associated with the features and for providing a plurality of overlapping subsets of the features, at least some of the overlapping subsets including fewer than all of the features within the set of data (col. 5 lines 30-50 discloses analyzing the feature points to determine parameters associated with the features and providing a plurality of subsets). As described in col. 6 lines 51-65, col. 7 lines 28-57, and seen in figure 6 the subsets can be made of  $n$  ( $n > 0$ ) feature points and the process of making the subsets uses nested for loops in which each feature points is included in

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multiple subsets thus there are a plurality of subsets with overlapping features. The limitation that the overlapping subsets include fewer than all of the features within the set of data is inherent since a subset is part of a set.

Regarding claim 40, the parameters associated with the features comprises data relating to a feature type (col. 5 lines 46-50).

Regarding claims 41 and 44 a parameter comprises and data indicative of a position of the feature relative to the first feature (col. 5 lines 30-50).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 42-43, and 45-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Califano et al. USPN 6,041,133 (hereinafter Califano) in view of Bjorn USPN 6,035,398.

Claim 42 discloses hashing data corresponding to the plurality of overlapping subsets of the features. Although Califano discloses hashing of data (col. 6 lines 25-50) he does not explicitly disclose hashing data corresponding to the plurality of overlapping subsets of the features. The hashing of biometric information is well known.

Bjorn discloses a method of producing a cryptographic key using biometric data (col. 1 lines 39-41). A feature extraction unit receives a fingerprint from a fingerprint

sensor (step 415 figure 4) and additional features of the fingerprints (step 425). These features of the fingerprints are hashed to create a cryptographic key (430, similar to the key formed by Califano col. 9 lines 1-50).

Califano and Bjorn are analogous art because they are from the same field of endeavor of fingerprint matching.

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine Califano and Bjorn hash the overlapping subsets to create the key for added security of the system. Thus it would have been obvious to one of ordinary skill in the art to combine Califano and Bjorn to obtain the invention as specified in claim 42.

Regarding claim 43, Califano generates the subsets in a manner that is insensitive to the order of the data provided, therefore it would be obvious that the hashing would be insensitive to the order as well.

Claims 45-46 recite similar limitations to claim 42, thus the same arguments used for claim 42 apply equally to claims 45-46.

Claim 47 discloses limitations similar to claim 43, thus the same arguments used for claim 43 apply equally to claim 47.

#### ***Allowable Subject Matter***

7. As stated in the previous Office Action claims 24, and 28-38 are allowed.

#### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

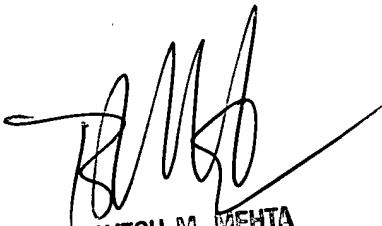
***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B Strege whose telephone number is (571) 272-7457. The examiner can normally be reached on Monday-Friday between the hours of 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JS



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